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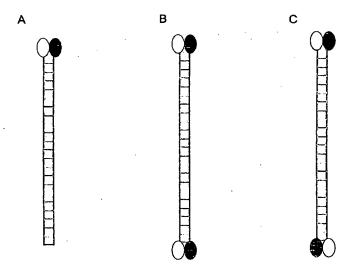
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(54) Title: METHODS AND MATERIALS USING SIGNALING PROBES



(57) Abstract: The present invention relates to methods of isolating cells or generating cell lines using signaling probes that produce a signal upon hybridization to a target sequence. Other methods that utilize the signaling probe include methods of quantifying the level of RNA expression, methods for identifying genetic recombinational events in living cells and methods of generating a transgenic animal using the isolated cells. The invention also provides protease probes. Signaling probes and protease probes that form stem-loop structures, three-arm junction structures, and dumbbell structures are provided.

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